# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20054

In the Matter of	)	
	)	
Advanced Television Systems and	)	
their Impact Upon the Existing	)	MB Docket No. 87-268
Television Broadcast Service	j	

To: The Commission

# **PETITION FOR RECONSIDERATION**

Sky Television, L.L.C. ("Sky"), is the licensee of WSKY-TV, Manteo, North Carolina, a singleton station authorized to operate on analog Channel 4. WSKY-TV has a digital construction permit for Channel 4 and has nearly completed the "flash-cut" of the station from analog to digital. The station will operate on Channel 9 post-transition. Because of the unique situation in which Sky finds itself, it hereby seeks reconsideration of WSKY-TV's DTV Channel 9 operating parameters as set forth in the proposed DTV Table of Allotments contained in Appendix B of the Commission's *Seventh Report and Order and Eighth Further Notice of Proposed Rulemaking*, FCC 07-318 (rel. Aug. 6, 2007).

WSKY-TV's DTV Table Appendix B allotment is based on the station's original 2004 DTV construction permit. However, after specifying that site, Sky discovered that the tower at that location would not support the station's DTV antenna. As a result, Sky was forced to find a replacement tower site, and subsequently modified its construction permit in 2006. Sky expects to complete tower construction at that location in the near term.

Post-transition digital operation from the replacement site may prove untenable for WSKY-TV without a modification to its DTV Table Appendix B facilities. While WSKY-TV's original DTV construction permit contemplated use of an omni-directional antenna, the station cannot operate with an omni-directional antenna from its new location and still provide a city-grade contour to its community of license without exceeding the station's current DTV Table Appendix B facilities. In the alternative, the station might be able to design a directional antenna that would enable it to provide a city-grade contour to its community of license without exceeding the currently allotted DTV Table Appendix B facilities, but the use of such a hypothetical antenna would result in a loss of service in heavily populated areas within the coverage area permitted by the existing DTV Table Appendix B facilities.

As a result, Sky requests that the Commission substitute WSKY-TV's DTV Table

Appendix B parameters with those set forth in the attached engineering exhibits prepared by

Smith and Fisher, which specify operation from WSKY-TV's currently authorized site. The

proposed digital facilities, specifying use of a directionalized antenna from Sky's new tower

site, will permit the station to operate its post-transition digital facilities on Channel 9 and

place a city-grade contour over the station's community of license. Moreover, the requested

parameters will allow the station to operate from its currently authorized site without creating

any interference beyond what would have resulted from its DTV Table Appendix B facilities.

As the tower site specified in Sky's original DTV construction permit is no longer available, and the station is nearing completion of construction its a replacement site, Sky requests that the Commission reconsider WSKY-TV's DTV Table Appendix B allotment and revise it to the proposed parameters, which will enable the station to provide digital service to viewers in compliance with the Commission's rules following the DTV transition.

Respectfully submitted,

SKY TELEVISION, L.L.C.

Bv:

John W. Bagwell

Leventhal Senter & Lerman PLLC 2000 K Street, N.W. Suite 600 Washington, DC 20006-1809 (202) 429-8970

October 26, 2007

Its Attorneys

# **EXHIBIT A**

### **ENGINEERING STATEMENT**

The engineering data contained herein have been prepared on behalf of SKY
TELEVISION, L.L.C., licensee of WSKY-TV in Manteo, North Carolina, in support of its Petition
for Reconsideration of the Commission's Seventh Report and Order concerning its assignment
of digital television (DTV) station operating parameters for all full-power television facilities in the
United States.

WSKY-DT was allotted DTV Channel 9 at a site no longer available to this station. Accordingly, it is proposed herein to change its assigned operating parameters to the presently authorized WSKY-DT site, and with sufficient power and height to allow coverage of Manteo with the requisite city-grade contour.

It is proposed to mount a standard directional antenna at the 306-meter level of the existing 316-meter WSKY-DT tower. Azimuth and elevation pattern data for the proposed antenna are provided in Exhibit B. Exhibit C is a tabulation of proposed operating parameters. A contour map is included as Exhibit D. As shown, the city of Manteo is located within the predicted 43 dBu contour.

In Exhibit E, we provide an interference analysis with respect to post-transition DTV facilities. It concludes that the facility proposed herein meets the stringent 0.1 percent interference standard to all facilities of concern. A power density calculation is included as Exhibit F.

**EXHIBIT A** 

Since no change in the overall height or location of the existing tower is proposed herein, the FAA will need no notification of this proposal. In addition, the FCC issued Antenna Structure Registration Number 1252202 to this tower.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

KEVIN T. FISHER

October 24, 2007



Date

Call Letters

22 Oct 2007

9 Channel

Location

Customer Antenna Type Manteo

THV-10A9 C140

# **ELEVATION PATTERN**

RMS Gain at Main Lobe RMS Gain at Horizontal Calculated / Measured

10.0

(10.00 dB)

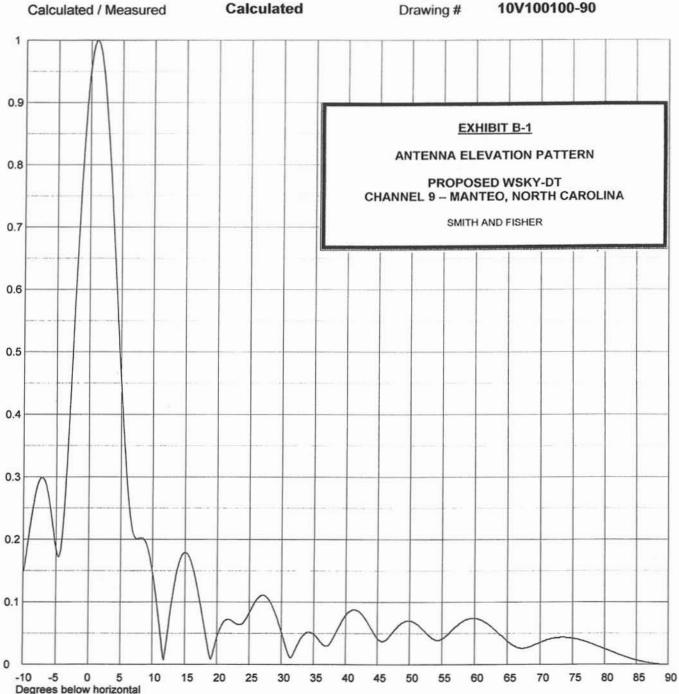
9.0 (9.54 dB) Beam Tilt Frequency

189.00 MHz

Drawing #

10V100100-90

1.00 Degrees



Remarks:

Channel

9



Date

22 Oct 2007

Call Letters Location

Manteo

Customer

Antenna Type

THV-10A9 C140

#### **AZIMUTH PATTERN**

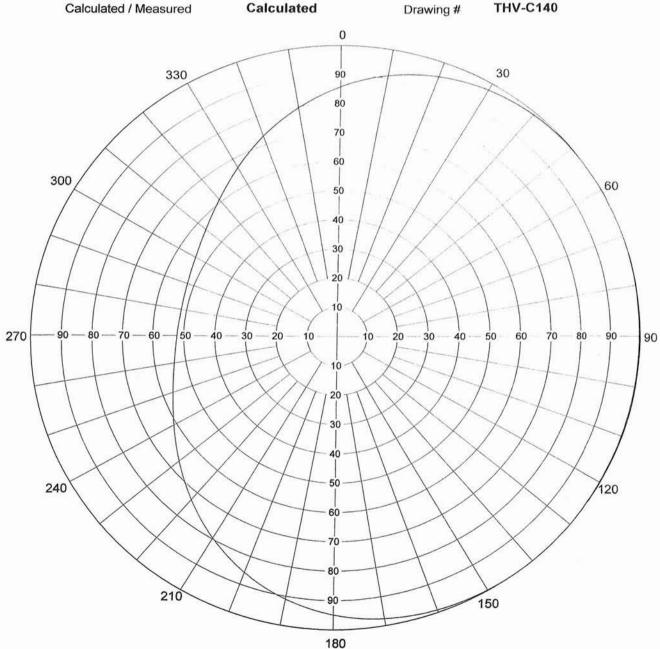
Gain

1.40 (1.46 dB)

Frequency

189 MHz

**THV-C140** 



Remarks:

### **EXHIBIT B-2**

ANTENNA AZIMUTH PATTERN

PROPOSED WSKY-DT CHANNEL 9 - MANTEO, NORTH CAROLINA

SMITH AND FISHER



Date

22 Oct 2007

Manteo

Call Letters

Channel

9

Location

Customer

Antenna Type

THV-10A9 C140

# **TABULATION OF AZIMUTH PATTERN**

Azimuth Pattern Drawing #

**THV-C140** 

Angle	Field	ERP (kW)	ERP (dBk)
0	0.858	25.8	14.11
10	0.910	29.0	14.62
20	0.949	31.5	14.99
30	0.976	33.3	15.23
40	0.991	34.4	15.36
50	0.998	34.9	15.42
60	1.000	35.0	15.44
70	0.999	34.9	15.43
80	0.998	34.9	15.42
90	0.997	34.8	15.41
100	0.997	34.8	15.41
110	0.997	34.8	15.41
120	0.998	34.9	15.42
130	0.999	34.9	15.43
140	1.000	35.0	15.44
150	0.998	34.9	15.42
160	0.991	34.4	15.36
170	0.976	33.3	15.23
180	0.949	31.5	14.99
190	0.910	29.0	14.62
200	0.858	25.8	14.11
210	0.796	22.2	13.46
220	0.730	18.7	12.71
230	0.666	15.5	11.91
240	0.610	13.0	11.15
250	0.566	11.2	10.50
260	0.537	10.1	10.04
270	0.521	9.5	9.78
280	0.517	9.4	9.71
290	0.521	9.5	9.78
300	0.537	10.1	10.04
310	0.566	11.2	10.50
320	0.610	13.0	11.15
330	0.666	15.5	11.91
340	0.730	18.7	12.71
350	0.796	22.2	13.46

# Maxima

Angle	Field	ERP (kW)	ERP (dBk)
60	1.000	35.0	15.44
140	1.000	35.0	15.44

# Minima

Angle	Field	ERP (kW)	ERP (dBk)
100	0.997	34.8	15.41
280	0.517	9.4	9.71

### **EXHIBIT B-3**

ANTENNA RELATIVE FIELD VALUES

PROPOSED WSKY-DT CHANNEL 9 - MANTEO, NORTH CAROLINA

SMITH AND FISHER

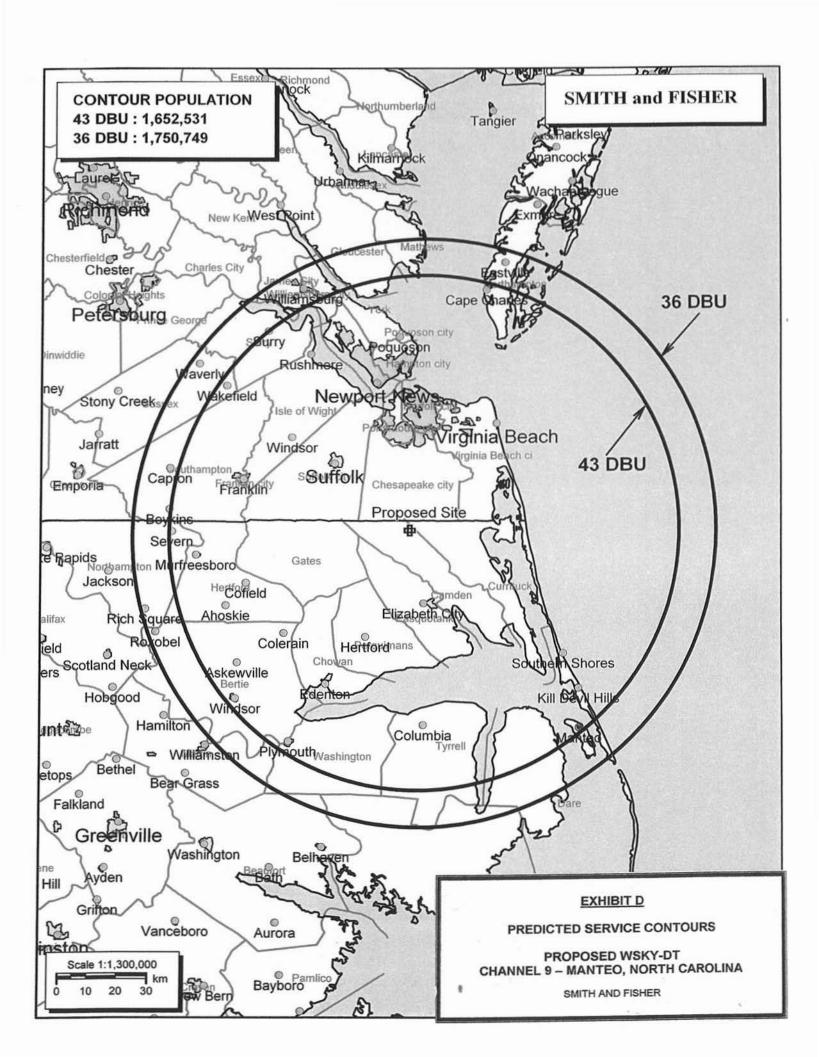
#### SMITH AND FISHER

# **EXHIBIT C**

# PROPOSED OPERATING PARAMETERS

# PROPOSED WSKY-DT CHANNEL 9 – MANTEO, NORTH CAROLINA

ERP (main-lobe, maximum) 35 kw Site Elevation AMSL 3.9 meters Overall Structure Height AGL 315.9 meters Radiation Center Height AGL 306 meters Radiation Center Height AMSL 310 meters Radiation Center Height AAT 306 meters Antenna Structure Registration Number 1252202 Antenna Make and Model Dielectric THV-10A9-C140 Orientation 100° T Beam Tilt 1.00 degrees Geographic Coordinates 36-31-14.5 N 76-18-16.2 W



#### INTERFERENCE STUDY

# PROPOSED WSKY-DT CHANNEL 9 – MANTEO, NORTH CAROLINA

The instant proposal specifies an ERP of 35 kw (directional) at 306 meters above average terrain, which we have determined to be allowable under the FCC's 0.1 percent interference standard with respect to various DTV facilities.

We looked at the interference situation with respect to facilities as they will exist on or before February 17, 2009, the date by which all stations will be operating with the digital facilities recently adopted in the Commission's DTV Table of Allotments. The only station affected will be WUSA-DT, Channel 9 in Washington, D.C., which will operate on its present analog channel with its post-transition DTV facility.

In evaluating the interference effect of this proposal, we have relied upon the V-Soft Communications "Probe III" computer program, which has been found generally to mimic the FCC's program. In conducting our studies, we employed a cell size of 1.0 kilometers and an increment spacing of 0.1 kilometer along each radial. In addition, we utilized the 1990 U.S. Census. Changes in interference caused by proposed WSKY-DT to other pertinent stations are tabulated in Exhibit E-2.

As shown, the proposed WSKY-DT facility would not significantly increase the amount of predicted interference to the service population of post-transition WUSA-DT.

# SMITH AND FISHER

# EXHIBIT E-1

A Longley-Rice interference study also reveals that the proposed WSKY-DT facility does not cause interference within the protected 74 dBu contour of any potentially affected Class A low power television station.

Therefore, this proposal meets the FCC's interference standards for changes to the DTV Table of Allotments.

# SMITH AND FISHER

# **EXHIBIT E-2**

# INTERFERENCE STUDY SUMMARY

# PROPOSED WSKY-DT CHANNEL 9 – MANTEO, NORTH CAROLINA

<u>Call Sign</u>	City, State	CH.	Coverage Population	Interference Population From WSKY-DT
WUSA-TV Post-Transition	Washington, D.C.	9	6,306,287	12,412

<sup>\*</sup>The proposed WSKY-DT facility causes no more interference to post-transition WUSA-DT than that caused by the WSKY-DT facility authorized in Appendix B of the Commission's DTV Table of Allotments.

## EXHIBIT F

# POWER DENSITY CALCULATION

# PROPOSED WSKY-DT CHANNEL 9 – MANTEO, NORTH CAROLINA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Manteo facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 35 kw, an antenna radiation center 306 meters above ground, and the vertical pattern of the Dielectric antenna, maximum power density two meters above ground of 0.000052 mw/cm² is calculated to occur 176 meters east of the base of the tower. Since this is significantly less than 0.1 percent of the 0.2 mw/cm² reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 9 (186-192 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.